

In the specification:

Title:

ASSEMBLIES OF DIFFERENTIABLE SEGMENTED COLLOIDAL—ROD  
PARTICLES AS NANOBAR CODES

Page 17, lines 5-19:

a<sup>1</sup>

A key property of certain embodiments of the particles of the present invention is that when the nanorods are segmented, differences in the reflectivities of the component metals can be visualized by optical microscopy. Thus, for example, in a segmented Au/Pt/Au rod of 200 nm in diameter and 4 to 5 microns in overall length, the segments are easily visualized in a conventional optical microscope, with the Au segments having a gold lustre, and the Pt segments having a more whitish, bright lustre. Another key property of the materials is that the length of the segments, when they are prepared by alternating electrochemical reduction of two or more metal ions in a membrane, can be controlled (and defined) completely by a) the composition of the solution and b) the number of Coulombs of charge that are passed in each step of an electrochemical reduction. The number of the segments can be varied at will. Likewise, the diameters and cross-sections of the particles can be controlled by selecting (or creating) membranes with appropriate pore size and shape. Figure 5 shows an image of a collection of nanoparticles of the present invention comprised of six different types or flavors of nanoparticles. This image demonstrates the ability to differentiate between the different types of nanobar codes in a collection of nanobar codes.

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PREPARATION OF METALIC METALLIC SEGMENTED PARTICLES